

**UnumProvident Corporation
Cumberland County
Portland, Maine
A-657-71-F-A**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

After review of the air emissions license minor modification application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

UnumProvident Corporation (UnumProvident) of Portland, Maine was issued Air Emission License A-657-71-D-R on October 10, 2002, permitting the operation of emission sources associated with their insurance office complex. The license was subsequently amended on November 22, 2002 (A-657-71-E-M).

B. Minor Modification Description

To avoid an untimely failure of HO2 Boiler #1, Unum has applied for an amendment to replace the existing 10.0 MMBtu/hr natural gas fired boiler with two 3.5 MMBtu/hr natural gas fired boilers. The facility proposes to maintain the same fuel limits, therefore there will be no change in the total facility-wide emissions.

Fuel Burning Equipment

Equipment	Date of Construction	Maximum Capacity (MMBtu/hr)	Fuel Type, %Sulfur	Maximum Firing Rate (scf/hr)	Stack #
HO1-Boiler #1	1994	2.4	Natural Gas	2330	4
HO1-Boiler #2	1994	1.0	Natural Gas	970.9	5
HO2-Boiler #1a	2003	3.5	Natural Gas	3,391	1
HO2-Boiler #1b	2003	3.5	Natural Gas	3,391	1
HO2-Boiler #2a	2002	2.07	Natural Gas	2,009.7	1
HO2-Boiler #2b	2002	2.07	Natural Gas	2,009.7	1
HO2-Boiler #2c	2002	2.07	Natural Gas	2,009.7	1
HO2-Boiler #2d	2002	2.07	Natural Gas	2,009.7	1
HO2-Boiler #2e	2002	2.07	Natural Gas	2,009.7	1
HO2-Boiler #3	1996	1.0	Natural Gas	970.9	1

Fuel Burning Equipment (Continued)

Equipment	Date of Construction	Maximum Capacity (MMBtu/hr)	Fuel Type, %Sulfur	Maximum Firing Rate (scf/hr)	Stack #
HO3-Boiler #1	1998	4.5	Natural Gas	4369	6
HO3-Boiler #2	1998	4.47	Natural Gas	4344	7
HO3-Boiler #3	1998	4.47	Natural Gas	4344	7
HO3-Boiler #4	1998	4.47	Natural Gas	4344	7

Bold indicates new equipment

C. Application Classification

The application for UnumProvident includes the installation of new equipment and has been processed as a minor modification.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new equipment requires a demonstration that emissions are receiving Best Available Control Technology (BACT) as defined in Chapter 100 of the Air Regulations. BACT is a top down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. New Boilers

HO2-Boiler #1a and 1b each have a heat input less than 10.0 MMBtu/hr and are therefore not subject to New Source Performance Standards (NSPS) Subpart Dc.

A summary of BACT is detailed below:

- Use of natural gas.
- SO₂, NO_x, CO and VOC emission data was taken from AP-42 dated 7/98 for boilers having a heat input of 0.5 to 10 MMBtu/hr firing natural gas.
- PM and PM₁₀ emission rates were based upon BACT of 0.05 lb/MMBtu for PM and PM₁₀.
- Visible emissions from the stack serving HO2-Boiler #1a and 1b (Stack 1) shall not exceed an opacity of 10 percent on a six (6) minute block average basis.

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor new source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

The Department hereby grants Air Emission License amendment A-657-71-F-A subject to the conditions found in Air Emission License A-657-71-D-R, amendment A-657-71-E-M and in the following conditions:

The following shall replace Condition (16) of license A-657-71-D-R:

(16) Boilers

A. Emissions from HO1-Boiler #1 shall not exceed the following [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.29
PM ₁₀	0.29
SO ₂	0.01
NO _x	0.23
CO	0.20
VOC	0.01

- B. Emissions from HO1-Boiler #2 shall not exceed the following [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.12
PM ₁₀	0.12
SO ₂	0.01
NO _x	0.10
CO	0.08
VOC	0.01

- C. Emissions from HO2-Boiler #1a and #1b each shall not exceed the following [MEDEP Chapter 115, BACT]:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.05	0.18
PM ₁₀	n/a	0.18
SO ₂	n/a	0.01
NO _x	n/a	0.34
CO	n/a	0.28
VOC	n/a	0.02

- D. Emissions from HO2-Boiler #2a, 2b, 2c, 2d and 2e each shall not exceed the following [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.10
PM ₁₀	0.10
SO ₂	0.01
NO _x	0.20
CO	0.17
VOC	0.01

- E. Emissions from HO2-Boiler #3 shall not exceed the following [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.12
PM ₁₀	0.12
SO ₂	0.01
NO _x	0.10
CO	0.08
VOC	0.01

- F. Emissions from HO3-Boiler #1 shall not exceed the following [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.54
PM ₁₀	n/a	0.54
SO ₂	n/a	0.01
NO _x	n/a	0.44
CO	n/a	0.37
VOC	n/a	0.02

- G. Emissions from HO3-Boiler #2, #3 and #4 shall not exceed the following (each) [MEDEP Chapter 115, BPT]:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.10	0.54
PM ₁₀	n/a	0.54
SO ₂	n/a	0.01
NO _x	n/a	0.43
CO	n/a	0.36
VOC	n/a	0.02

- H. All licensed boilers at UnumProvident shall fire only natural gas.
[MEDEP Chapter 115, BPT]
- I. UnumProvident shall fire no more than 100,000,000 cubic feet of natural gas facility wide, based on a 12-month rolling total. Compliance shall be based on natural gas receipts from the supplier showing the quantity of fuel supplied.
[MEDEP Chapter 115, BPT]

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- J. Visible emissions from each stack serving the licensed boilers at UnumProvident (Stack 1, 4, 5, 6 and 7) shall not exceed an opacity of 10 percent on a six (6) minute block average basis.
[MEDEP Chapter 101, BPT]

The following is a new condition to license A-657-71-D-R:

- (20) This amendment shall expire concurrently with Air Emission License A-657-71-D-R.
[MEDEP Chapter 115]

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: October 6, 2003

Date of application acceptance: October 27, 2003

Date filed with Board of Environmental Protection: _____

This order prepared by Mark. E. Roberts, Bureau of Air Quality